IN THE CLAIMS:

1.-19. (canceled)

20. (currently amended) A system to perform closed loop controlled delivery of electrical stimulation to excitable neural tissue of a portion of the spine of a body, comprising:

a sensing circuit to sense at least one physiologic parameter and provide an output signal related thereto, wherein said sensing circuit operatively couples to ~~at least one of the following: a physical activity sensor, an electrogram adapted to sense a change in an ST segment,~~ a sensor adapted to sense a change in paraspinal muscle tone~~, a heart rate sensor~~;

a stimulation circuit to provide the electrical stimulation to excitable neural tissue of a portion of the spine in response to the output signal;

a drug dispensing apparatus coupled to a catheter and adapted to deliver biologically-active agents via the catheter to the body; and

a closed loop control circuit coupled to the sensing circuit, to the stimulation circuit, and to the drug dispensing apparatus configured to control the stimulation circuit and the drug dispensing apparatus based on anticipation of an occurrence of a cardiac insult as indicated by the at least one physiologic parameter, wherein at least one input to said closed loop control circuit includes the output signal from said sensing circuit.

21. (original) The system of Claim 20, wherein the control circuit includes a patient-activation mechanism.

22. (previously presented) The system of Claim 20, wherein the control circuit includes means for initiating the electrical stimulation in response to the at least one physiologic parameter sensed by the sensing circuit, and said at least

one physiologic parameter comprises an increase in the muscle tone of the paraspinal muscles.

23. (previously presented) The system of Claim 20, wherein the control circuit includes means for altering the electrical stimulation provided in response to the at least one physiologic parameter sensed by the sensing circuit.

24. (previously presented) The system of Claim 20, wherein the control circuit includes means for ceasing the electrical stimulation provided in response to the at least one physiologic parameter sensed by the sensing circuit.

25. (previously presented) The system of Claim 22, and further including means for notifying a patient of the anticipation of the occurrence of the cardiac insult.

26. (original) The system of Claim 20, wherein the stimulation circuit includes at least one implanted electrode.

27. (original) The system of Claim 20, wherein the stimulation circuit includes at least one subcutaneous electrode.

28. (original) The system of Claim 20, wherein the stimulation circuit includes at least one electrode positioned proximate an external surface of the body.

29. (original) The system of Claim 20, and further including a storage device coupled to the control circuit to store results of past electrical stimulation; and

wherein the control circuit include means for performing future electrical stimulation based on the results of past electrical stimulation.

30. (previously presented) The system of Claim 22, and further including a drug delivery system coupled to the control circuit to deliver biologically-active agents based on the anticipation of the occurrence of the cardiac insult.

31. (currently amended) A device to provide electrical stimulation to at least one predetermined portion of excitable neural tissue of a portion of the spine of a patient, comprising:

means for sensing at least one physiologic indication in the patient's body which relates to a probable future cardiac insult event, wherein said means for sensing comprises ~~includes at least one of: a physical activity sensor, an electrogram adapted to sense a change in an ST segment,~~ a sensor adapted to sense a change in paraspinal muscle tone~~, a heart rate sensor~~;

means for providing stimulation to the at least one predetermined portion of excitable neural tissue of a portion of the spine of a patient;

means for dispensing a biologically-active substance to the patient; and

means for performing closed loop control of the stimulation means and the means for dispensing to provide the stimulation and administer the biologically-active substance based on an indication of the probable future cardiac insult event as determined by the ~~at least one~~ physiologic indication.

32. (currently amended) An apparatus for protecting cardiac tissue from insult, comprising:

at least one electrode positionable at a region adjacent a portion of excitable neural tissue of a portion of the spine of a patient;

a sensing circuit to detect at least one physiologic parameter and provide an output signal related thereto, wherein said sensing circuit comprises ~~includes at least one of: a physical activity sensor, an electrogram adapted to sense a change in an ST segment,~~ a sensor adapted to sense a change in paraspinal muscle tone~~, a heart rate sensor~~;

a drug dispenser including a catheter adapted to dispense a biologically-active substance to the patient; and

a controller adapted to deliver closed loop-controlled of at least one of an electrical stimulation therapy to the at least one electrode for a period of time prior to onset of a cardiac insult and delivery of the biologically-active substance, wherein at least one parameter of the electrical stimulation therapy and the delivery of the biologically-active substance is controlled as a function of the output signal related to the sensed physiologic parameter.

33. (original) The apparatus of Claim 32, wherein the controller includes means for delivering electrical stimulation for a period of time after the onset of the insult.

34. (original) The apparatus of Claim 33, wherein the controller includes means for delivering electrical stimulation for a period of time after the termination of the insult.

35. (original) The apparatus of claim 32, and further including a circuit coupled to the controller to provide electrical stimulation to cardiac tissue.

36. (original) The apparatus of claim 35, wherein the electrical stimulation comprises pacing pulses.